

APR 23 1965

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Fort Detrick  
Frederick, Md. 21701  
'65 April 21

Dr. Joshua Lederberg  
Dept. of Genetics  
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Palo Alto, California 94304

Dear Dr. Lederberg:

Thirty years ago, while seeking summer employment at the Beryllium Corporation in Reading, Pa., my attention was drawn to the intriguing structure of "basic beryllium acetate," then used to extract this element because it is soluble in organic solvents and boils without decomposition at 330°C.

Its unusual structure is described in my 1930 (3rd edition) copy of J. R. Partington's TEXTBOOK OF INORGANIC CHEMISTRY, page 835, as follows:

"The X-ray examination of the crystalline compound shows that the four beryllium atoms are arranged at the corners of a regular tetrahedron, with the oxygen at the centre, and the six edges are occupied by the acetate groups."

You will have to agree that this is a long-known example of your Gauche graph pictured as a circled pentagonal star (your Fig. 4a), a "Topologicochemical hiatus" that has "obligatory crossed paths."

None of these "chelated" structures are listed in the RING INDEX, but our notation team is very much concerned with chelates at present, and so is the Patent Office and NBS. (I just received a reprint in yesterday's mail on "A Line-Formula Notation System for Coordination Compounds," by Patricia M. McDonnell in the Office of R&D, USPO, and Robert F. Pasternack in the Information Technology Divn of NBS; reprinted from J. CHEM. DOC **N** 5, 56, 1965.) The octahedrally chelated examples cited by these USPO & NBS workers seem to correspond with your "tri-spoked hexagon" (Fig. 4b, one that I noted among the 43 fundamental types of TETRACyclic forms).

Are you doing topological mapping with these chelated kinds of chemical structures?

Sincerely yours,

Wm. J. Wiswesser

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11cc.

Wiswesser, W. J.

4/23/65  
Probably so.  
I have not them con-  
sidering  
coordination  
complexes &  
would begin by  
incorporating  
the  
McDonnell-Pas-  
ternack system  
as an adjunct to  
NENDR.  
see p 1.53  
WJ